

### REMARKS

In the outstanding office action, claims 1-25 were presented for examination. Claims 1, 5-7, 11-13, 17, 18, and 20-25 were rejected under 35 U.S.C. §102(e) as being anticipated by Glugla et al. (U.S. Patent No. 6,389,806). Claims 8, 9, 10, 14-16, 19 were rejected under 35 U.S.C. §103 over Glugla et al. in view of Ma (U.S. Patent No. 6,023,929) and claims 3 and 4 were rejected under 35 U.S.C. §103 over Glugla et al. in view of design choice. In addition, claim 15 was objected to.

In the instant amendment applicant has amended the specification on pages 2, 11 and 21 in order to address some grammatical and/or typographical errors. Changes to the specification are shown on the preceding pages of the instant amendment, no new matter has been added.

Applicant has also amended Figure 8 of drawings to correct a minor error. More specifically, reference numeral 72 has been changed to 74 in order to make the drawings consistent with the specification. No new matter has been added.

In addition, applicant has amended claim 15 to address the objections raised in the outstanding office action. More specifically, applicant has inserted the text of --at least one of-- after “during” on line 2 and --and/or-- has been replaced with --and--. Accordingly, applicant respectfully requests withdrawal of the objection to claim 15. Dependent claim 25 has been amended to depend from claim 24 as opposed to claim 23 in order to provide proper antecedence for the same.

Claim 1 has been amended to include the following language “through said second fluid path” on line 17 and “wherein the efficiency of said catalytic converter at engine start-up is increased as the catalytic converter will be brought to an operating

temperature faster than a time required if no cylinders were deactivated and engine exhaust is flowing through both said first fluid path and said second fluid path” on line 19, wherein applicant has merely made explicit what was implicit in the claim. In addition, line 3 has also been amended to change “a” to --an-- before exhaust. Support for these amendments if found in the application as filed thus, no new matter has been added.

Independent claim 1, as amended, is directed to an exhaust system for a vehicle having the limitations, “a exhaust manifold for providing fluid communication of exhaust of the plurality of cylinders to a catalytic converter, said exhaust manifold comprising a first exhaust pipe portion and a second exhaust pipe portion ... second fluid path being shorter than said first fluid path; and ... wherein an exhaust of a first temperature is expelled by said second plurality of cylinders into said catalytic converter through said second fluid path, said first temperature being greater than an exhaust temperature that would be generated by said first and said second plurality of cylinders operating at said condition corresponding to said engine output demand, wherein the efficiency of said catalytic converter at engine start-up is increased as the catalytic converter will be brought to an operating temperature faster than a time required if no cylinders were deactivated and engine exhaust is flowing through both said first fluid path and said second fluid path”.

First, and in order to anticipate a claim, the reference must teach every element of the claim. "A claim is anticipated only if each and every element as set forth in the claim is found, either expressly or inherently described, in a single prior art reference." *Verdegaal Bros. v. Union Oil Co. of California*, 814 F.2d 628, 631, 2 USPQ2d 1051, 1053 (Fed. Cir. 1987). "The identical invention must be shown in as complete detail as is contained in the ... claim." *Richardson v. Suzuki Motor Co.*, 868 F.2d 1226, 1236, 9 USPQ2d 1913, 1920 (Fed. Cir. 1989). The elements must be arranged as required by the claim, but this is not an ipsissimis verbis test, i.e., identity of

terminology is not required. *In re Bond*, 910 F.2d 831, 15 USPQ2d 1566 (Fed. Cir. 1990).

Referring to claim 1, the Glugla et al. reference does not teach or disclose “a second fluid path being shorter than said first fluid path”. In fact, page 3 of the outstanding office action specifically states that Glugla et al. “fails to disclose that said second fluid path is shorter than the first path”. Thus, applicant respectfully requests withdrawal of the rejection of claim 1 under 35 U.S.C. §102 under Glugla et al.

In addition, applicant respectfully submits that Glugla et al. fails to support a rejection under 35 U.S.C. §103. To establish a prima facie case of obviousness, three basic criteria must be met. First, there must be some suggestion or motivation, either in the references themselves or in the knowledge generally available to one of ordinary skill in the art, to modify the reference or to combine reference teachings. Second, there must be a reasonable expectation of success. Finally, the prior art reference (or references when combined) must teach or suggest all the claim limitations. The teaching or suggestion to make the claimed combination and the reasonable expectation of success must both be found in the prior art and not based on applicant's disclosure. *In re Vaeck*, 947 F.2d 488, 20 USPQ2d 1438 (Fed. Cir. 1991). See MPEP § 2143 - 2143.03.

The initial burden is on the examiner to provide some suggestion of the desirability of doing what the inventor has done. "To support the conclusion that the claimed invention is directed to obvious subject matter, either the references must expressly or impliedly suggest the claimed invention or the examiner must present a convincing line of reasoning as to why the artisan would have found the claimed invention to have been obvious in light of the teachings of the references." *Ex parte Clapp*, 227 USPQ 972, 973 (Bd. Pat. App. & Inter. 1985).

Moreover, a finding of “obvious to try” does not provide the proper showing for an obviousness determination. The requirement for a determination of

obviousness is that "both the suggestion and the expectation of success must be founded in the prior art, not in applicant's disclosure". *In re Dow Chem.*, 837 F.2d 469, 473, 5 U.S.P.Q.2d 1529, 1531 (Fed. Cir. 1988). An Examiner, then, cannot base a determination of obviousness on what the skilled person in the art might try or find obvious to try. Rather, the proper test requires determining what the prior art would have led the skilled person to do. It is submitted that in the instant case, the Glugla et al. patent would not have led the skilled person to try the "design choice" asserted in the outstanding Office Action because the Glugla et al. reference clearly shows two symmetrical exhaust paths.

Applicant respectfully submits that Glugla et al. fails to teach the limitation of a "second fluid path being shorter than said first fluid path; and ... wherein the efficiency of said catalytic converter at engine start-up is increased as the catalytic converter will be brought to an operating temperature faster than a time required if no cylinders were deactivated and engine exhaust is flowing through both said first fluid path and said second fluid path". Accordingly, claim 1 is believed to be allowable over Glugla et al.

Claim 12 has been amended to include the following language "plurality of cylinders" on line 22 and "wherein the efficiency of said catalytic converter at engine start-up is increased as the catalytic converter will be brought to an operating temperature faster than a time required if no cylinders were deactivated and engine exhaust is flowing through an entire length of said pair of exhaust manifolds" on line 24, wherein applicant has merely made explicit what was implicit in the claim. Support for these amendments if found in the application as filed thus, no new matter has been added.

Claim 12, as amended, is directed to an exhaust system for a vehicle having the limitations, "a pair of exhaust manifolds ... providing a first fluid path for exhaust of a first plurality of cylinders of the engine and ... a second fluid path for exhaust of a second plurality of cylinders of the engine, said second fluid path being

shorter than said first fluid path ... wherein the efficiency of said catalytic converter at engine start-up is increased as the catalytic converter will be brought to an operating temperature faster than a time required if no cylinders were deactivated and engine exhaust is flowing through an entire length of said pair of exhaust manifolds". Again, applicants respectfully submit that Glugla et al. fails to teach or disclose such a limitation. Thus, claim 12 is believed to be allowable over the Glugla et al. reference.

Claim 17 has been amended on line 25 to replace "all" with --the-- and the following text "wherein the efficiency of said catalytic converter at engine start-up is increased as the catalytic converter will be brought to an operating temperature faster than a time required if no cylinders were deactivated and engine exhaust is flowing through an entire length of said pair of exhaust manifolds" has been added to line 26, wherein applicant has merely made explicit what was implicit in the claim. Support for these amendments is found in the application as filed thus, no new matter has been added.

Claim 17, as amended, thus includes the following limitation "wherein an exhaust of a first temperature is expelled by said remaining active cylinders of said plurality of cylinders into said warm up converter, said first temperature being greater than an exhaust temperature that would be generated by the plurality of cylinders operating at said condition corresponding to said engine output demand, wherein the efficiency of said catalytic converter at engine start-up is increased as the catalytic converter will be brought to an operating temperature faster than a time required if no cylinders were deactivated and engine exhaust is flowing through an entire length of said pair of exhaust manifolds", which is clearly not disclosed or taught by the Glugla et al. reference. In addition, claim 17 also recites "a warm up converter", which is not shown or taught by the Glugla et al. reference. Thus, applicant respectfully submits that claim 17 is allowable over the Glugla et al. reference.

Claim 23 has been amended on lines 9, 11, 15 and 16 in order to clarify

the same in addition, the following text “wherein the efficiency of said catalytic converter at engine start-up is increased as the catalytic converter will be brought to an operating temperature faster than a time that would be required if no cylinders were deactivated and the engine exhaust is flowing through an exhaust path of both the first plurality of cylinders and the second plurality of cylinders” has been added to line 18, wherein applicant has merely made explicit what was implicit in the claim. Support for these amendments if found in the application as filed thus, no new matter has been added.

Claim 23, as amended, is directed to a method for reducing the exhaust emissions of an engine having, the method including the following limitation “wherein the efficiency of said catalytic converter at engine start-up is increased as the catalytic converter will be brought to an operating temperature faster than a time that would be required if no cylinders were deactivated and the engine exhaust is flowing through an exhaust path of both the first plurality of cylinders and the second plurality of cylinders”, which applicant respectfully submits is not disclosed or taught by the Glugla et al. reference. Thus, claim 23 is believed to be allowable over Glugla et al.

Claim 24 is directed to medium for implementing a method similar to that of claim 23 thus, claim 24 is also believed to be allowable over Glugla et al. Claim 24 has also been amended on line 8 to correct a minor grammatical error, namely the insertion of --an-- before “operating”. In addition, the following text “wherein the efficiency of said catalytic converter at engine start-up is increased as the catalytic converter will be brought to an operating temperature faster than a time that would be required if no cylinders were deactivated and the engine exhaust is flowing through an exhaust path of both the first plurality of cylinders and the second plurality of cylinders” has been added to line 18, wherein applicant has merely made explicit what was implicit in the claim. Support for these amendments if found in the application as filed thus, no new matter has been added.

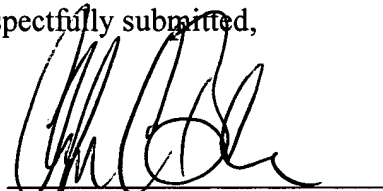
Claims 2-11, 13-16, 18-22 and 25 depend either directly or indirectly from the aforementioned independent claims. Thus, they are also believed to be in a condition for allowance as they add additional limitations to the independent claims.

In view of the above, it is respectfully submitted that the instant application is in a condition for allowance. Such action is earnestly solicited. If for any reason the Examiner feels that consultation with Applicant's attorney would be helpful in the advancement of the prosecution, he is invited to call the telephone number below for an interview.

If there are any charges due with respect to this Amendment or otherwise, please charge them to Deposit Account No. 06-1130, maintained by the Applicant's attorney.

Respectfully submitted,

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IN THE DRAWINGS

Please amend/replace Figures 1-9 with the attached formal drawings.